Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C.

In the Matter of	)	
	)	
Requests for Comment on	)	CC Docket No. 94-102
Wireless E911 Phase II	)	
Automatic Location Identification	)	
Requirements	)	

TO: The Commission

COMMENTS OF THE KING COUNTY E911 PROGRAM

I. Introduction

The following comments are provided in response to the Wireless Telecommunications Bureau's request regarding Wireless E911 Phase II Automatic Location Identification requirements. King County is the largest county in Washington State with a population of 1.7 million people. The county includes the large urban city of Seattle, as well as suburban, rural, and mountainous areas. Enhanced 911 service is provided to the public through 18 Public Safety Answering Points (PSAPs). Wireless 911 calls are having an increasingly significant impact on our Enhanced 911 system, and currently approximately 300,000 wireless 911 calls, or 20% of the total 911 calls, are received annually. As a result of this impact, we have been actively involved in tracking actions taken by your Commission and in evaluating the Phase II technologies which have been developing throughout the country.

II. King County Phase II Location Technology Technical Evaluation Results

King County recently had the opportunity to be involved in the technical evaluation of a Phase II location technology which uses GPS technology in the handset to locate wireless phones. Based on our evaluation, we have determined that this technology is very effective in meeting the needs of public safety to locate wireless 911 callers. One of the most critical factors in being able to quickly respond to wireless 911 calls based on Phase II location information is the accuracy of the location provided. It is estimated that 25% of wireless 911 callers are unsure of where they are. The PSAPs in King County and the rest of Washington State have been concerned that the Commission's requirement of locating calls within 406 feet is not an accurate enough location for public safety to respond to in most situations. As a result, for this test, King County set a requirement of locating callers to within 40 feet. During the test, this GPS technology was able to locate 31% of the calls within 40 feet, 51% of the calls within 70 feet, 75% of the calls within 150 feet, and 94% of the calls within the FCC requirement of 406 feet. In addition, further developments of this technology since the test period ended have shown increasing improvement in location accuracy. This technology also proved to be very reliable because it was able to locate 100% of the calls which were transmitted. It is our assessment based on the test results that have been demonstrated that this technology is very effective in locating wireless 911 callers, and would give public safety an accurate enough location to actually respond to.

In addition to an accurate location being critical in being able to dispatch responding emergency personnel, it is also critical for the selective routing of 911 calls. King County's Enhanced 911 system includes 18 PSAPs, 42 fire districts, and 27 police departments. We have

determined that 48% of our wireless 911 calls are made from the major highways, and the remaining 52% come from the local jurisdictions. With this complexity of public safety agency response boundaries, the ability to selectively route wireless 911 calls based on the caller's location is critical to our being able to provide effective 911 service. In our test of this technology, we were able to selectively route the test calls made from the highway to the State Patrol, and the calls from city streets adjacent to the highway to the local police department.

This GPS technology was also very attractive in that the location information was received at the PSAP on existing E-911 equipment that is available today. One of our test requirements was to display the information on existing call taker equipment, and the information was displayed in both text and on a map on the call taker's 911 workstation. In addition, the information was delivered through existing 911 networking which is in place today. The ability to deliver the location information through the existing network, eliminating the need to install additional networking, is very attractive to local governments and public safety agencies because it should dramatically reduce the cost of this service.

Based on our experience in participating in this technical evaluation and on the results of this test, we are very excited about the capabilities of handset-based GPS technology. This technology has proven to be highly accurate and reliable, and has the capability of providing PSAPs with the tools they need to accurately locate and provide emergency service to wireless 911 callers.

III. Handset-Based Technology Waivers

A. Phase II Deadlines

We encourage the Commission to ensure that all Phase II location technologies, including handset solutions which use GPS technology, be given an equal opportunity to be considered as viable solutions for providing Phase II location technology to PSAPs. We feel that the benefits to the public and the public safety agencies who provide 911 service of implementing an accurate location technology far outweigh slight delays in the implementation schedule. Although some adjustments may be needed to the Phase II October 1, 2001 deadline, we would urge the Commission to establish stringent deadlines for the implementation of a handset-based solution. We support the deadlines proposed by APCO of carriers beginning to offer ALI-capable handsets by January 1, 2000, with 80% of the handsets being upgraded by December 31, 2001, and 100% by December 31, 2002.

B. Retrofit

We are aware that the handset technology we tested in King County is available as a retrofit for existing wireless phones. This provides an option to receive Phase II service to those who choose to not replace their handset. Deadlines should also be established for these existing phones to be made ALI-capable, to ensure that these handset retrofits are completed in a timely manner.

C. Technical Standards: Roamers and PSAP Equipment

We would also support the establishment of standards for GPS handset technology. There must be standards established for the interface of these technologies to the existing Enhanced 911 systems and PSAP equipment. This would ensure that the public would receive Phase II service as they travel throughout the country and need to access 911 in different areas. In addition, this would ensure that PSAPs could receive the Phase II information from all types of wireless phones, regardless of the carrier providing the service.

D. Non-Subscriber Phones Without ALI Capability

We are concerned about the large number of wireless phones which have been purchased by the public only for calling 911, in which the person has not subscribed to wireless phone service. We receive 911 calls from these phones today, and we will continue to receive them after Phase II has been implemented. Without subscribing to service, these wireless phone users will not receive the benefits of Enhanced 911 service. Although it is the responsibility of public safety and the wireless carriers to educate these wireless users on the unavailability of Enhanced 911 service if they choose to not subscribe to wireless service, at some point people need to take some responsibility for the choices they make. We should not limit our choices of Phase II technology based on the need to attempt to provide service to a segment of the population who has consciously chosen to limit their access to Enhanced 911 service, and in addition will not be contributing to the funding of that service through the payment of 911 excise taxes. It may be acceptable for these 911 callers to only receive basic 911 service if they make this choice.

IV. Conclusion

We respectfully encourage the Commission to consider taking action to ensure that all Phase II location technologies, including handset solutions which use GPS technology, be given an equal opportunity to be implemented as viable solutions for providing Phase II location technology. The ability to implement an accurate location technology which gives public safety the tools they need to accurately locate and provide emergency service to wireless 911 callers is consistent with the intent of the original E911 order. We feel that the benefits to the public and the public safety agencies who provide 911 service of implementing an accurate location technology far outweigh slight delays in the implementation schedule.

Respectfully submitted,

KING COUNTY E911 PROGRAM

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